



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,322	02/06/2004	Cheng-Chieh Liu	0941-0911P	6485
2292	7590	11/21/2006	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			LE, DANG D	
PO BOX 747			ART UNIT	
FALLS CHURCH, VA 22040-0747			PAPER NUMBER	
			2834	

DATE MAILED: 11/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/772,322	Applicant(s) LIU ET AL.	
	Examiner Dang D. Le	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 9/14/06 have been fully considered but they are not persuasive.

Regarding claims 1 and 8 with Horiuchi et al., it is noted that the slot in Horiuchi et al. is also used to position the motor controller. Although the spring 58 is used to position the motor controller, the wall of the heat sink is also used to position the motor controller. Without the wall of the heat sink, the spring itself does not work. In addition, the heat sink can also have a second function as being a container, besides reducing heat. The switch 55 is the motor controller because it can function to switch on and off in the art of motor control.

Regarding claim 15, inherently there are more than one pins on the motor controller 55 if pin 61 is a ground connection because there must be a positive connection in order for the motor controller 55 to work.

Regarding Doemen et al. reference, the "bolts" 179 and 180 are also hooks because in addition to showing a semi-circle extending below, they also show the protrusions above for 180 and below for 179. The protrusions prevent the "bolts" from falling off the circuit board 172. The so-called "pillars" 56 in Figure 6 is also used to position the container. With the base 55, the pillars can be said to form a U-shaped cross section. The claims are open ended and the "positioning pillars" in claim 5 do not have to mean the positioning pillars are for receiving the controller. In addition, Doemen

Art Unit: 2834

et al. does not have to show the container holding the motor controller because Horiuchi already shows the motor controller. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Regarding Horng and Takashi references, the thickness of Horng will not be affected because Horng also shows the controller (3, Figure 4) extending from the circuit board 2, which is similar to the mounting of the sensing element 21 in Takashi. As a result, it is obvious to utilize the container of Takashi in the motor of Horng. In addition, every motor controller must have a plurality pins and wires for connection.

For the above reasons, the rejections are still deemed proper and repeated hereinafter.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 7, 8, 14, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Horiuchi et al. (5,969,445).

Regarding claim 1, Horiuchi et al. shows a container (56, Figures 1 and 8) for mounting a motor controller for a heat-dissipating device having a chassis (46), said

Art Unit: 2834

container comprising a main body (56A) directly mounting on the chassis of the heat-dissipating device and having a slot (where 55 located, between 58 and 56B) to receive and position (against the spring) the motor controller (FETS 55).

Regarding claim 8, Horiuchi et al. shows a heat-dissipating device (Figures 1 and 8), comprising:

- A chassis (46);
- A stator (12) disposed on the chassis;
- A rotor (5) surrounding the stator and coupled to the stator;
- A motor controller (FETS 55) driving and controlling the heat-dissipating device; and
- A container (56) directly mounted on the chassis and having a slot (Where 55 located, between 58 and 56B) to receive and position (against the spring) the motor controller.

Regarding claims 7, 14, and 15, Horiuchi et al. shows the container being mounted on the chassis and pins (61).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

Art Unit: 2834

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 2-6, 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horiuchi et al. in view of Doemen et al. (4,482,849).

Regarding claims 4 and 11, Horiuchi et al. shows all of the limitations of the claimed invention except for the use of hooks.

Doemen et al. shows the hooks (179, 180, Figure 9) for the purpose of mounting the container easily.

Since Horiuchi et al. and Doemen et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include hooks as taught by Doemen et al. for the purpose discussed above.

Regarding claims 5, 6, 12, and 13, it is noted that Doemen et al. also shows all of the limitations of the claimed invention including the pillars (56).

Regarding claims 2, 3, 9, and 10, Doemen et al. also shows the container being substantially square and the slot being formed in the central portion.

Art Unit: 2834

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horiuchi et al. in view of Doemen et al. and further in view of Horng.

Regarding claim 16, the motor of Horiuchi et al. modified by Doemen et al. includes all of the limitations of the claimed invention except for the motor controller being an integrated circuit.

Horng et al. shows the motor controller (3) being an integrated circuit with the Hall sensor for the purpose of reducing parts.

Since Horiuchi et al., Doemen et al., and Horng et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include the sensor with the controller as taught by Horng for the purpose discussed above.

8. Claims 17, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horng (6,462,443) in view of Takashi (JP 63-039448).

Regarding claim 17, Horng shows a heat-dissipating device, comprising:

- A chassis (4);
- A stator (11, 12) disposed on the chassis;
- A rotor (5) surrounding the stator and coupled to the stator;
- A motor controller (3) driving and controlling the heat-dissipating device; and
- The controller (Figure 3) directly mounted on and protruding from the stator.

Art Unit: 2834

Hornig does not show a container directly mounted on and protruding from the stator and having a slot to receive the motor controller.

Takashi shows a container (16) directly mounted on and protruding from the stator (10) and having a slot to receive the sensor for the purpose of protecting the sensor.

Since Hornig and Takashi are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include a container for mounting the controller as taught by Takashi for the purpose discussed above.

Regarding claims 22 and 23, Hornig also shows the pins and the integrated circuit with detector.

9. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hornig in view of Takashi and further in view of Doemen et al.

Regarding claims 18-20, the device of Hornig modified by Takashi includes all of the limitations of the claimed invention except for the cover with the container being mounted on the cover, and the container being formed with pillars.

Doemen et al. shows the cover (28) with the container (54) being mounted on the cover, and the container being formed with pillars (56) for the purpose of making easily connection.

Art Unit: 2834

Since Horng, Takashi, and Doemen et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include the cover with the container being mounted on the cover, and the container being formed with pillars as taught by Doemen et al. for the purpose discussed above.

Regarding claim 21, Doemen et al. also shows the container being mounted on the cover portion.

Information on How to Contact USPTO

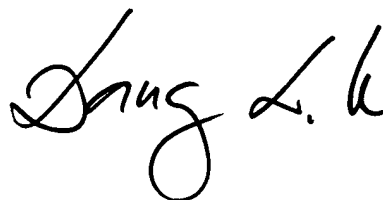
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D. Le whose telephone number is (571) 272-2027. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2834

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

11/19/06

A handwritten signature in black ink, appearing to read "Dung L. Le". The signature is fluid and cursive, with the first name "Dung" being the most prominent part.

DANG LE
PRIMARY EXAMINER